

Title (en)  
ULTRASONIC TRANSDUCER ASSEMBLY AND ULTRASONIC SURGICAL INSTRUMENT INCORPORATING THE SAME

Title (de)  
ULTRASCHALLWANDLERANORDNUNG UND CHIRURGISCHES ULTRASCHALLINSTRUMENT DAMIT

Title (fr)  
ENSEMBLE TRANSDUCTEUR ULTRASONORE ET INSTRUMENT CHIRURGICAL ULTRASONORE LE COMPRENANT

Publication  
**EP 3996609 A4 20230614 (EN)**

Application  
**EP 20836697 A 20200610**

Priority  
• US 201962871293 P 20190708  
• US 2020036939 W 20200610

Abstract (en)  
[origin: WO2021006984A1] An ultrasonic transducer assembly of an ultrasonic surgical instrument includes a piezoelectric stack, an ultrasonic horn secured to and extending distally from the piezoelectric stack, and a casing. The ultrasonic horn includes a body and a nose extending distally from the body. The casing is disposed about the piezoelectric stack and the body of the ultrasonic horn. The casing defines a distal opening through which the nose of the ultrasonic horn extends. The casing is hermetically sealed to the ultrasonic horn about the distal opening to define a hermetically sealed interior enclosing the piezoelectric stack and the body of the ultrasonic horn therein.

IPC 8 full level  
**A61B 17/32** (2006.01); **A61B 17/00** (2006.01)

CPC (source: CN EP US)  
**A61B 17/320068** (2013.01 - CN US); **A61B 17/320092** (2013.01 - EP); **B06B 1/0611** (2013.01 - US); **A61B 2017/22027** (2013.01 - EP); **A61B 2017/320069** (2017.08 - CN); **A61B 2017/320082** (2017.08 - CN US); **B06B 2201/76** (2013.01 - US)

Citation (search report)  
• [XYI] US 10245064 B2 20190402 - RHEE SORA [US], et al  
• [Y] US 2016121143 A1 20160505 - MUMAW DANIEL J [US], et al  
• [A] EP 2338426 A1 20110629 - OLYMPUS MEDICAL SYSTEMS CORP [JP]  
• See also references of WO 2021006984A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2021006984 A1 20210114**; CN 114072080 A 20220218; EP 3996609 A1 20220518; EP 3996609 A4 20230614;  
US 2022240970 A1 20220804

DOCDB simple family (application)  
**US 2020036939 W 20200610**; CN 202080048102 A 20200610; EP 20836697 A 20200610; US 202017618787 A 20200610